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10/066,682	02/06/2002	Hiroshi Nishida	50099-196	4651

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EXAMINER

MURPHY, DILLON J

ART UNIT	PAPER NUMBER
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2624

DATE MAILED: 08/22/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/066,682

Applicant(s)

NISHIDA, HIROSHI

Examiner

Dillon J. Murphy

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 February 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 06 February 2002 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 5/28/02, 5/17/05.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION***Drawings***

The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: #175 corresponding to the "Print Data Transmission Unit" in Figure 2, as well as #1751 corresponding to "Color Conversion Information Attaching Unit," also in Figure 2. The box labeled "Print Data Generation Unit," with reference character #174 is not mentioned in the specification. Corrected drawing sheets in compliance with 37 CFR 1.121(d), or amendment to the specification to add the reference character(s) in the description in compliance with 37 CFR 1.121(b) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

The disclosure is objected to because of the following informalities: print data transmission unit is referred to as #174 on page 8, line 16, and again on page 9, line 24, when it should be --#175--. The color conversion information attaching unit referred to as #1741 on page 9, line 25 should be --#1751--.

Appropriate correction is required.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 7 and 8 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. The computer programs claimed are merely a set of instructions per se and are not clearly embodied on a computer-readable medium. Since the computer program is merely a set of instructions not embodied on a computer readable medium to realize the computer program functionality, the claimed subject matter is not statutory. See MPEP § 2106 IV.B.1.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

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A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1, 2, and 5-8 are rejected under 35 U.S.C. 102(e) as being anticipated by Mestha et al. (US 6,744,531), hereafter referred to as Mestha.

Regarding claim 1, Mestha teaches a printing system comprising:

A plurality of printing units, and a server (Mestha, col 4, ln 14-17, system comprises a plurality of printers and a network print server. See also Figure 1, Hard Copy Output Device #300 in Image Data Adjusting System #100, and Image Data Source #500, wherein data source may be a server, col 3, ln 33-39), said server comprising (Mestha, col 2, ln 18-20, invention may be embodied on image data source, i.e. a server):

A color space information acquisition element for acquiring a plurality of pieces of color space information each corresponding to one of said plurality of printing units (Mestha, col 5, ln 38-42, image sensor (#400 in Figure 1) detects color image data from test image printed on one of a plurality of printing units);

A color conversion information generation element for generating a plurality of pieces of color conversion information, each corresponding to one of said plurality of printing units, on the basis of said plurality of pieces of color space information (Mestha, col 5, ln 43-50, data is sent to data adjusting subsystem (#200 in Figure 1) where acquired information is used to generate adjustment factors);

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An attaching element for attaching each of said plurality of pieces of color conversion information to print data to obtain a plurality of pieces of print information (Mestha, col 5, ln 51-57, when printing is requested, adjustment factors are attached to the target image data to correct for color inconsistencies); and

A transmission element (Mestha, Figure 1, communication links #210, #310, #410, and #510, respectively) for transmitting each of said plurality of pieces of print information to a corresponding one of said plurality of printing units, whereby said plurality of printing units generate printed materials of substantially the same color representation (Mestha, col 6, ln 15-21, data is sent to different printers wherein the output of different printers produce substantially the same final image).

Regarding claim 2, which depends from claim 1, Mestha further teaches a system wherein said plurality of printing units and said server are connected through a network (Mestha, col 3, ln 27-31, printing devices are connected via communication links, wherein the communication links may be a LAN, a WAN, the Internet, or the like), and said plurality of pieces of color space information and said plurality of pieces of print information are transmitted over said network (Mestha, col 7, ln 19-30, the color data adjusting subsystem communicates over said communication links).

Regarding claim 5, Mestha teaches a server (Mestha, Figure 1, Image Data Source #500, wherein data source may be a server, col 3, ln 34-39) comprising:

A color space information acquisition element for acquiring a plurality of pieces of color space information each corresponding to one of a plurality of printing units

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(Mestha, col 5, ln 38-42, image sensor (#400 Figure 1) detects color image data from test image printed on one of a plurality of printing units);

A color conversion information generation element for generating a plurality of pieces of color conversion information, each corresponding to one of said plurality of printing elements, on the basis of said plurality of pieces of color space information (Mestha, col 5, ln 43-50, data is sent to data adjusting subsystem (#200 in Figure 1) where acquired information is used to generate adjustment factors);

An attaching element for attaching each of said plurality of pieces of color conversion information to print data to obtain a plurality of pieces of print information (Mestha, col 5, ln 51-57, when printing is requested, adjustment factors are attached to the target image data to correct for color inconsistencies); and

A transmission element (Mestha, Figure 1, communication links #210, #310, #410, and #510, respectively) for transmitting each of said plurality of pieces of print information to a corresponding one of said plurality of printing units (Mestha, col 6, ln 15-21, data is sent to different printers wherein the output of different printers produce substantially the same final image).

Regarding claim 6, Mestha teaches a method of causing a plurality of printing units to do printing, comprising the steps of:

Acquiring a plurality of pieces of color space information each corresponding to one of said plurality of printing units (Mestha, col 5, ln 38-42, image sensor detects color image data from test image printed on one of a plurality of printing units);

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Generating a plurality of pieces of color conversion information, each corresponding to one of said plurality of printing units, on the basis of said plurality of pieces of color space information (Mestha, col 5, ln 43-50, data is sent to data adjusting subsystem where acquired information is used to generate adjustment factors);

Attaching each of said plurality of pieces of color conversion information to print data to obtain a plurality of pieces of print information (Mestha, col 5, ln 51-57, when printing is requested, adjustment factors are attached to the target image data to correct for color inconsistencies); and

Transmitting each of said plurality of pieces of print information to a corresponding one of said plurality of printing units, whereby said plurality of printing units generate printed materials of substantially the same color representation (Mestha, col 6, ln 15-21, data is sent to different printers wherein the output of different printers produce substantially the same final image).

Regarding claim 7, Mestha teaches a computer-readable medium comprising computer executable instructions, the instructions that may be installed in a computer acting as a server (Mestha, col 4, ln 18-20, software may be installed on a server), said instructions comprising steps for controlling the elements comprising:

A color space information acquisition element for acquiring a plurality of pieces of color space information each corresponding to one of a plurality of printing units (Mestha, col 5, ln 38-42, image sensor (#400 in Figure 1) detects color image data from test image printed on one of a plurality of printing units);

A color conversion information generation element for generating a plurality of pieces of color conversion information, each corresponding to said plurality of printing units, on the basis of said plurality of pieces of color space information (Mestha, col 5, ln 43-50, data is sent to data adjusting subsystem (#200 in Figure 1) where acquired information is used to generate adjustment factors);

An attaching element for attaching each of said plurality of pieces of color conversion information to print data to obtain a plurality of pieces of print information (Mestha, col 5, ln 51-57, when printing is requested, adjustment factors are attached to the target image data to correct for color inconsistencies); and

A transmission element for transmitting each of said plurality of pieces of print information to a corresponding one of said plurality of printing units (Mestha, Figure 1, communication links #210, #310, #410, and #510, respectively).

Regarding claim 8, Mestha teaches a computer-readable medium comprising computer-executable instructions, said instructions comprising steps to act as a server comprising (Mestha, col 4, ln 18-20, software may be installed on a computer to act as a server. Also see col 3, ln 34-39):

A color space information acquisition element for acquiring a plurality of pieces of color space information each corresponding to one of a plurality of printing units (Mestha, col 5, ln 38-42, image sensor (#400 in Figure 1) detects color image data from test image printed on one of a plurality of printing units);

A color conversion information generation element for generating a plurality of pieces of color conversion information, each corresponding to one of said plurality of

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printing units, on the basis of said plurality of pieces of color space information (Mestha, col 5, ln 43-50, data is sent to data adjusting subsystem (#200 in Figure 1) where acquired information is used to generate adjustment factors. Various elements of data adjusting subsystem may be implemented as software, col 11, ln 8-12);

An attaching element for attaching each of said plurality of pieces of color conversion information to print data to obtain a plurality of pieces of print information (Mestha, col 5, ln 51-57, when printing is requested, adjustment factors are attached to the target image data to correct for color inconsistencies); and

A transmission element for transmitting each of said plurality of pieces of print information to a corresponding one of said plurality of printing units (Mestha, Figure 1, communication links #210, #310, #410, and #510, respectively).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 3 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mestha et al. (US 6,744,531) and Zingher (US 5,897,260), hereafter referred to as Mestha and Zingher.

Regarding claim 3, which depends from claim 2, Mestha teaches a printing system comprising a plurality of printers and a server, wherein the server acquires color

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information, generates conversion information, attaches the conversion information to a print job, and transmits the print jobs via a network, as explained above in the rejection of claim 2. Mestha does not disclose expressly wherein the system further comprises a transmission element that transmits the print data to a plurality of printing units by one operation. Zingher, however, teaches such a system wherein the transmission element sends print data to a plurality of printers with one operation (Zingher, col 2, ln 55-67, and col 3, ln 1-4, wherein print information is entered once and sent to a print processor, and said print processor determines which of the plurality of printers should execute the requested print job. Thus, print information is transmitted to a plurality of printers with one operation).

Mestha and Zingher are combinable because they are from the same field of endeavor of printing systems over networks and distributed printing. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the transmission element of Zingher of multiple printing through one operation with the printing system of Mestha comprising a plurality of printers and a server comprising an acquisition element, a generation element, an attaching element, and a transmission element for transmitting via a network. The motivation for doing so would have been to provide a system and method for allocating print job requests received from world-wide printing customers in a manner such that the costs, transport distances, and transport times involved in production are minimized and the utilization of a plurality of printing plants located throughout the world is optimized (Zingher, col 2, ln 35-41), as well as to provide consistent output image quality across a plurality of different hard copy devices

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by adjusting input color values based on detected color values (Mestha, col 2, ln 10-13).

Therefore, it would have been obvious to combine Zingher with Mestha to obtain the invention as specified in claim 3.

Regarding claim 4, which depends from claim 3, the combination of Mestha and Zingher further teaches a printing system wherein said plurality of printing units each have inherent information for use in identifying said plurality of printing units, and said transmission element determines one printing unit to which each of said plurality of pieces of print information is transmitted, according to said inherent information (Zingher, col 5, ln 3-15, data input by customer specifies destination of printing device, therefore Zingher implicitly teaches printing device must have inherent information which specifies location. Using identification information, transmission element sends print information to printing unit via network. Additionally, performance capabilities of printing devices allow for identification, col 4, ln 45-50).

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The Holub reference, US 6,043,909, filed February 26, 1996, is cited for teaching a system, and program for acquiring color information regarding a print job, converting color information for consistency, and applying a color transform for each printer to produce consistent color output.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dillon J. Murphy whose telephone number is (571) 272-5945. The examiner can normally be reached on M-F, 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Moore can be reached on (571) 272-7437. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



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